

Title (en)

METHOD OF ANALYZING C-TERMINAL AMINO ACID SEQUENCE OF PEPTIDE USING MASS SPECTROMETRY

Title (de)

VERFAHREN ZUR ANALYSE DER C-TERMINALEN AMINOSÄURESEQUENZ EINES PEPTIDES MITTELS MASSENSPEKTROMETRIE

Title (fr)

PROCEDE D'ANALYSE D'UNE SEQUENCE D'ACIDE AMINE C TERMINAL DE PEPTIDE AU MOYEN D'UNE SPECTROMETRIE DE MASSE

Publication

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Application

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Abstract (en)

[origin: WO2004059323A1] It is intended to provide a method of analyzing the C-terminal amino acid sequence of a peptide using a means of successively degrading the C-terminal amino acids, whereby the C-terminal amino acids of a peptide having a long amino acid sequence can be successively degraded while preventing undesirable side reactions (for example, cleavage of a peptide bond in the middle of the peptide) and the treatment can be performed under widely applicable conditions. The above method comprises preliminarily N-acylating a dry sample of a peptide having a long amino acid sequence, degrading the C-terminal amino acids under mild conditions with the use of a reagent comprising a combination of an alkanolic acid anhydride with a small amount of a perfluoroalkanoic acid, adding water, then digesting with trypsin to selectively fragment at an arginine residue site, and measuring a loss in the molecular weight in the C-terminal fragment caused by a series of reaction products with a MALDI-TOF-MS device to thereby specify the C-terminal amino acid sequence.

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